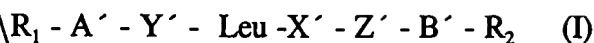


We Claim:

1. A compound having the formula



in which

5 X' means any group or amino acid imparting to the compound of formula (I) the ability to bind to the KLVFF-sequence in amyloid β peptide, or two amino acids imparting the same ability, but with the proviso that one is not proline;

Y' means any amino acid;

Z' means any non-acidic amino acid;

10 A' means a direct bond or an α -amino acid bonded at the carboxyl terminal of the α -carboxy group or a di-, tri-, tetra- or pentapeptide bonded at the carboxyl terminal of the α -carboxy group;

B' means a direct bond or an α -amino acid bonded at the α -nitrogen or a di-, tri-, tetra- or pentapeptide bonded at the α -nitrogen of the N-terminal α -amino acid; R_1 is H or $-\text{CO}-R_3$

15 bonded at the α -amino group of A'; R_2 is H, $-\text{OR}_4$ or NR_5R_6 , all bound to the α -carboxyl group of the α -carboxyterminal of B';

R_3 is a straight or branched carbon chain of 1-4 carbon atoms;

R_4 is a straight or branched carbon chain of 1-4 carbon atoms;

R_5 and R_6 independently are H, alkyl, cycloalkyl, aryl or substituted aryl or together are

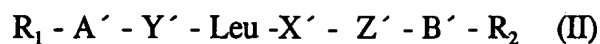
20 $-(\text{CH}_2)_n-$, where n is 4-5;

R_1 and R_2 together can form a hydrocarbon ring or heterocyclic ring; and

[illegible]

2. A compound according to Claim 1, wherein all the amino acids are D-isomers.
3. A compound according to Claim 1, wherein Y' is Lys.
4. A compound according to Claim 2, wherein Y' is Lys.
5. A compound according to Claim 3, wherein Y' is Lys and Z' is Phe.
6. A compound according to Claim 1, wherein Y' is Phe.
7. A compound according to Claim 2, wherein Y' is Phe.
8. A compound according to Claim 1, wherein X' is Val-Val.
9. A compound according to Claim 1, wherein R₁ is acetyl.
10. A compound according to Claim 1, wherein R₁ is H and/or R₂ is H.

11. Use of a compound of formula



in which

X' means any group or amino acid imparting to the compound of formula (II) the ability to bind to the KLVFF-sequence in the amyloid β peptide, or two amino acids imparting the same ability, but with the proviso that one is not proline;

Y' means any amino acid;

Z' means any non-acidic amino acid;

A' means a direct bond or an α -amino acid bonded at the carboxyl terminal of the α -amino acid bonded at the carboxyl terminal of the α -carboxy group or a di-, tri-, tetra- or pentapeptide bonded at the carboxyl terminal of the α -carboxy group;

B' means a direct bond or an α -amino acid bonded at the α -nitrogen or a di-, tri-, tetra- or pentapeptide bonded at the α -nitrogen of the N-terminal α -amino acid;

R₁ is H or -CO-R₃ bonded at the α -amino group of A';

R₂ is H, -OR₄ or NR₅R₆, all bound to the α -carboxyl group of the α -carboxyterminal of B';

R₃ is a straight or branched carbon chain of 1-4 carbon atoms;

R₄ is a straight or branched carbon chain of 1-4 carbon atoms;

R₅ and R₆ independently are H, alkyl, cycloalkyl, aryl or substituted aryl or together are

-(CH₂)_n-, where n is 4-5;

R₁ and R₂ together can form a hydrocarbon ring or heterocyclic ring;

all the α -amino acids can be either D- or L-isomers;

of polymerization
peptide, as a tool for
properties or as a ligand

- 17

ding to C

- ADD B3

add A7